

In the Claims

1. (Currently Amended) ~~Method~~ A method for producing a protein, the method comprising the steps of:

(a) providing a nucleic acid sequence coding for the protein wherein the nucleic acid sequence coding for the protein comprises a translation start codon;

(b) inserting in which a heterologous nucleic acid sequence ~~is inserted~~ on the 3' side of the translation start codon in the correct reading frame, wherein said heterologous nucleic acid sequence ~~being selected such that forms~~ a stem-loop structure ~~is formed~~ on the 3' side of the translation start codon ~~at a distance of 6-30 nucleotides~~ from the 3' side of the start codon;

(bc) providing an expression system ~~suitable for expressing the protein; and~~

(ed) introducing the nucleic acid ~~sequence~~ sequences combined in step (b) according to (a) into the expression system; and

(e) ~~according to (b) under conditions such that a~~ forming the stem-loop structure ~~is formed~~ wherein the length of the stem is in the range of 4-12 nucleotides.

2. (Currently Amended) ~~Method~~ The method as claimed in claim 1 ~~additionally further comprising the isolation of~~ the step of isolating the protein.

3. (Currently Amended) ~~Method~~ The method as claimed in claim 1 ~~or 2, characterized in that, wherein~~ the ~~inserted~~ heterologous nucleic acid sequence has a length of up to 201 nucleotides.

4. (Currently Amended) ~~Method~~ The method as claimed in claim 3, ~~characterized in that wherein~~ the ~~inserted~~ heterologous nucleic acid sequence has a length of up to 45 nucleotides.

5. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 4, characterized in that claim 1 wherein~~ the stem-loop structure is formed ~~at a distance of 12-21 nucleotides on from~~ the 3' side of the start codon.

6. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 5, characterized in that claim 1 wherein~~ the region of the heterologous nucleic acid

sequence that is on the 5' side of the stem-loop structure does not itself form a secondary structure ~~and cannot form a secondary structure~~ with the 5' untranslated region of the nucleic acid sequence coding for the protein ~~to be produced~~.

7. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 6, characterized in that~~ claim 1 wherein the region of the heterologous nucleic acid sequence that is on the 5' side of the stem-loop structure and on the 3' side of the ATG start codon has a GC content of \leq less than 50 %.

8. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 7, characterized in that~~ claim 1 wherein an *in vitro* expression system is used.

9. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 8, characterized in that~~ claim 8 wherein a ~~prokaryotic~~ the *in vitro* expression system is a prokaryotic *in vitro* expression system used.

10. (Currently Amended) ~~Method~~ The method as claimed in claim 9, ~~characterized in that~~ wherein the prokaryotic *in vitro* expression system comprises a lysate ~~lysates of gram-negative bacteria, in particular of *Escherichia coli* of gram-positive bacteria, in particular of or of *Bacillus subtilis*.~~

11. (Currently Amended) ~~Method~~ The method as claimed in claim 8, ~~characterized in that~~ wherein a ~~eukaryotic~~ the *in vitro* expression system is a eukaryotic *in vitro* expression system used.

12. (Currently Amended) ~~Method~~ The method as claimed in claim 11, ~~characterized in that~~ wherein the eukaryotic *in vitro* expression system comprises a lysate ~~selected from the group consisting of a lysate~~ lysates of mammalian cells ~~in particular of rabbits, reticulocytes, human tumour cell lines, hamster cell lines, or other vertebrate cells, in particular oocytes, and eggs of fish, eggs of and amphibia, as well as insect cell lines, yeast cells, algal cells, or and~~ extracts of plant seedlings.

13. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 7, characterized in that~~ claim 1 wherein the expression system is a prokaryotic *in vivo* expression system is used.

14. (Cancelled)

15. (Currently Amended) ~~Method~~ The method as claimed in claim ~~13-14, characterized in that~~ wherein the a-gram-negative prokaryotic expression system~~host cell, in particular comprises an *E. coli* cell or a gram-positive prokaryotic host cell, in particular a *Bacillus subtilis* cell is used.~~

16. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 7, characterized in that~~ claim 1 wherein the expression system comprises a eukaryotic host cell is used as an expression system.

17. (Currently Amended) ~~Method~~ The method as claimed in claim 16, ~~characterized in that~~ wherein the eukaryotic host cell is selected from the group consisting of a yeast cell, an insect cell, or a vertebrate cell, in particular an amphibian cell, a fish cell, a bird cell, and a or mammalian cell, and a vertebrate cell is used.

18. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 7, characterized in that~~ claim 16 wherein the expression system is a non-human eukaryotic host organism is used as the expression system.

19. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 18, characterized in that~~ claim 1 wherein the nucleic acid sequence coding for the protein is provided by a method selected from the group consisting of cloning, recombination or/and amplification.

20. (Currently Amended) ~~Method~~ The method as claimed in claim 19, ~~characterized in that~~ wherein the nucleic acid sequence coding for the protein is provided by provision comprises a two-step PCR~~polymerase chain reaction.~~

21. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 20, characterized in that~~ claim 1 wherein the nucleic acid sequence coding for the protein ~~to be produced or/and~~ the heterologous nucleic acid sequence comprises at least partially have a codon ~~usage~~ adapted, based on codon usage, to the ~~respective~~ expression system.

22. (Currently Amended) ~~Method~~ The method as claimed in ~~one of the claims 1 to 21, characterized in that~~ claim 1 wherein the heterologous nucleic acid sequence comprises ~~contains a section coding sequence for a purification domain or/and a section coding for a~~ proteinase recognition domain.

23. (Currently Amended) ~~Reagent~~ A composition for producing a protein, the composition comprising:

(a) a nucleic acid sequence that is heterologous to the nucleic acid sequence coding for the protein ~~which can be~~ wherein the heterologous nucleic acid sequence is inserted into the protein-coding nucleic acid sequence in the correct reading frame and wherein the heterologous nucleic acid sequence ~~which can form~~ forms a stem-loop structure ~~at a distance of~~ 6-30 nucleotides ~~on~~ from the 3' side of the translation start codon; and

(b) an expression system ~~that is suitable for producing~~ the protein.